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IN THE

Supreme Court of the United States

OCTOBER TERM, 1970

No. 338

BLONDER-TONGUE LABORATORIES, INC.,
Petitioner,

vs.

UNIVERSITY OF ILLINOIS FOUNDATION,

AND

JFD ELECTRONICS CORPORATION,
Respondents.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT.

BRIEF OF RESPONDENT UNIVERSITY OF ILLINOIS FOUNDATION.

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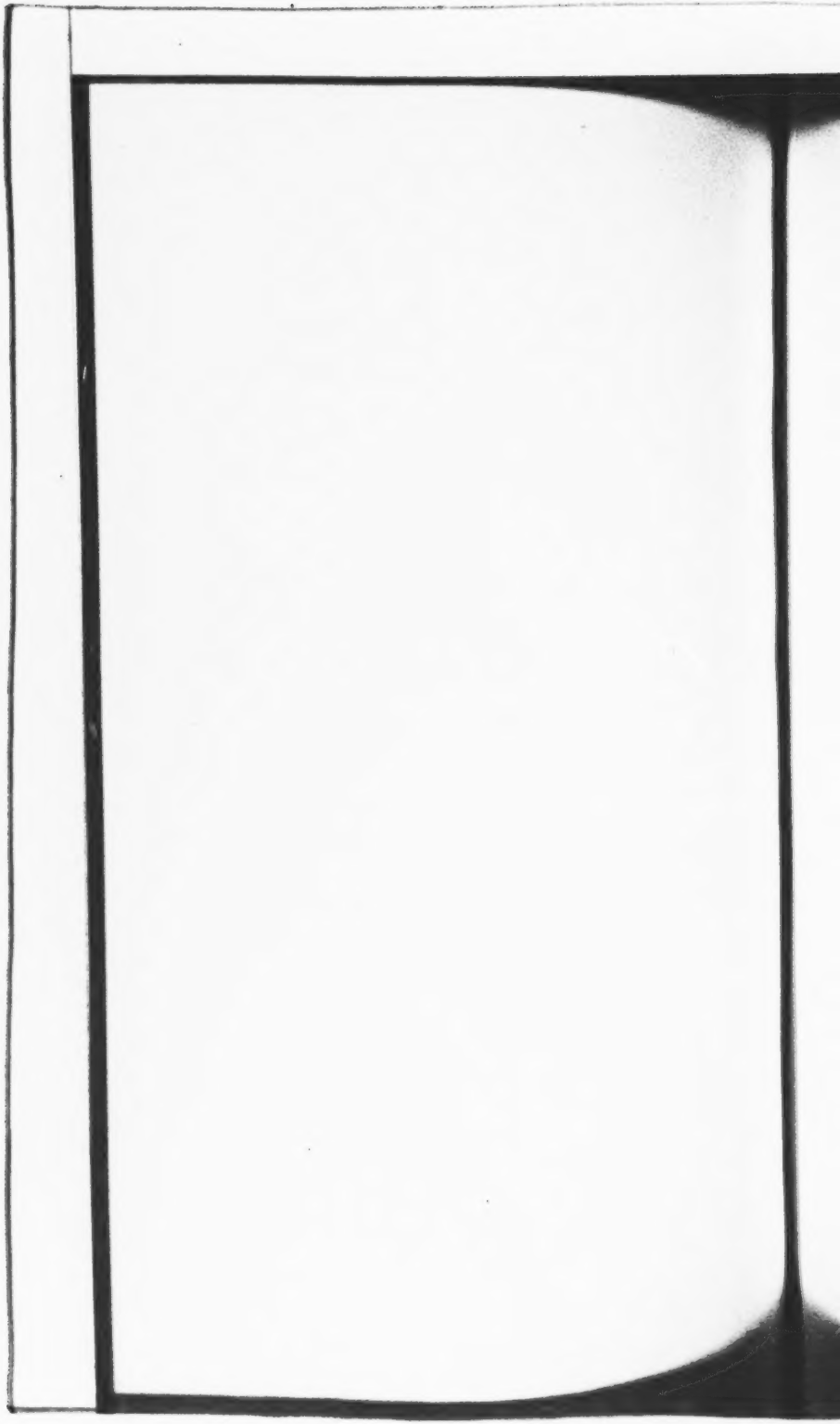

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STATUTES.

35 U. S. C. § 103

Conditions for patentability—Non-obvious subject matter.

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such

that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made. July 10, 1952, c. 950, § 1, 66 Stat. 798.

35 U. S. C. § 282

Presumption of validity—Defenses.

A patent shall be presumed valid. Each claim of a patent (whether in independent or dependent form) shall be presumed valid independently of the validity of other claims; dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting it. * * * July 19, 1952, c. 950, § 1, 66 Stat. 812; July 24, 1965, P. L. 89-83, § 10, 79 Stat. 261.

35 U. S. C. § 285

Attorney fees.

The court in exceptional cases may award reasonable attorney fees to the prevailing party. July 19, 1952, c. 950, § 1, 66 Stat. 813.

STATEMENT OF THE CASE.

We call the Court's attention to the following errors and/or omissions in Blonder-Tongue's statement of the case. The sections are labeled to correspond with those in the brief of Blonder-Tongue (B-T).

In the Introduction to its Statement of the Case (B-T Brief, p. 5), and indeed in many other portions of its brief (note, in particular, pages 17-23), Blonder-Tongue

alludes to its alleged deprivation of due process, arising from the fact that the trial court refused on December 26, 1967 to grant it an additional delay in the start of the trial, which had been postponed from October 23rd to December 18, 1967 at the request of Blonder-Tongue (A. 6, 132). The trial actually started on December 28, 1967 (A. 7).

Blonder-Tongue's argument in this regard was fully considered and rejected by the Court of Appeals for the Seventh Circuit (A. 55) and has not been presented to this Court as a question for review.

With respect to the Mayes et al. patent (B-T Brief, p. 6) there is no support for Blonder-Tongue's statement that the Court of Appeals for the Seventh Circuit reversed "by holding that the University of Illinois Foundation had indeed presented half-truths to the Patent office". The sole basis for the finding of invalidity of the Mayes patent was obviousness of the invention in view of the prior art (A. 65).

As to Question 4 (Fraud, Unfair Competition and Antitrust, B-T Brief, p. 7) the allegation that the Court of Appeals "found deception in the procurement of the Mayes patent" is without foundation. The court found no fraud had been committed (A. 67) and found that the failure to inform the Patent Office of what later proved to be a prior publication served only to rebut the presumption of validity of the Mayes et al. patent (A. 68).

Blonder-Tongue's allegation (Brief, p. 7) that the Isbell and Mayes et al. patents were "prosecuted together" in the Patent Office is misleading. Like every other patent application in the Patent Office, these were prosecuted individually. If Blonder-Tongue means to say that the periods of prosecution overlapped, which is the case, then we have no quarrel.

There is no support in the record for the allegations made by Blonder-Tongue (Brief, p. 8) that the Isbell and Mayes et al. patents were "used in widespread threats and coercion in the marketplace"; that JFD was guilty of unfair competition in "hiring away, during preparation for trial, petitioner's key witness"; or that "other acts of unfair competition" had been committed. The only support for these charges is Blonder-Tongue's own allegations. Both courts that have considered them have found no merit whatever in these claims (A. 68, 69, 84-88).

SUMMARY OF ARGUMENT.

Question No. 1 (re Triplett v. Lowell).

The *Triplett* rule that a finding of patent invalidity is not *res judicata* is based on and consistent with sound legal principles which advance the public interest and should continue to be adhered to. The arguments usually offered in support of a change in the rule, namely, (1) that relitigation of patents already held invalid represents a substantial and unnecessary burden on the courts, and (2) that the rule prejudices the public interest in seeing that invalid patents are eliminated, are not well founded. The number of relitigated patents is so small as to be insignificant, as shown by a 1961 study prepared for the Subcommittee on Patents, Trademarks and Copyrights of the Senate Judiciary Committee. This report showed that during the 10 year period from 1949 through 1958, only about 1% of the patent cases filed in that period involved patents which were being relitigated after a prior determination of invalidity.

Similarly, the argument that relitigation of patents once held invalid is against the public interest ignores the equally important consideration that it is as much in the

public interest to uphold a good patent as to strike a bad one. Because of the complex and intricate inherent nature of the issue of patent validity, the *Triplett* rule affords a desirable safeguard against erroneous findings of invalidity which is in the best interest of both patentees and the public.

Any change in the *Triplett* rule should be made only after careful consideration and for compelling reasons. In order to properly balance the sometimes conflicting interests of patentees, accused infringers and the public, while avoiding undue burden on the courts, any such change, if considered necessary, should be made by Congress, which is more flexible in its operation and in a better position to conduct the comprehensive investigation which the nature of the subject demands.

Question No. 2 (re Retroactive Application of Change in Triplett Rule).

Even if the Court decides that the rule in *Triplett* should be changed, it would be manifestly unfair to apply the change to respondent in this case. The finding of invalidity relative to the Isbell patent is even now not yet final, since there is still pending before this Court a petition for reconsideration of the denial of certiorari in the *Winegard* case. Further, at the time respondent initiated litigation against Winegard, Blonder-Tongue, and others, it had every justification for believing that a finding of invalidity in any one case would not be applied in any other action. It would also be unfair for this Court to change the *Triplett* rule and to hold that respondent is barred by the Winegard litigation, and thereafter to hold that the *Winegard* case was improperly decided, if the Court agrees that the Court of Appeals for the Eighth Circuit applied an improper legal standard. The inequity

which might result to respondent is a further reason for suggesting that any change in the rule be made by legislative action, which is more flexible in setting up means for avoiding such injustice.

Question 3 (re Isbell Patent).

The holdings of the courts below that Isbell's invention was nonobvious and hence valid under the standards set out by this Court in *Graham* v. *John Deere Co.*, 383 U. S. 1, 17-18 (1966) is fully supported by the findings of fact which these courts made. Even though the individual elements of which Isbell's antenna is composed were known in combination with other elements, there was no basis on which one skilled in the art would find it obvious to first isolate the particular elements used by Isbell from the prior art and then combine these elements as Isbell did. Although there was a general theory which permitted a designer to design a "log-periodic" structure which potentially might be frequency independent in operation, the art itself recognized and the courts below found that it was impossible to predict which structures made in this manner would in fact have frequency independent properties. The number of log-periodic structures which could be designed using the known active elements was countless, and very few of the possible structures were frequency independent. Moreover, none of the possible structures could be singled out as having a greater likelihood of being frequency independent than the others. Accordingly, it was not obvious to test any one structure, such as that made by Isbell, to determine if it had frequency independent properties, on anything other than a blind trial-and-error, hit-or-miss basis.

The holding of the Eighth Circuit Court of Appeals that the Isbell patent is invalid was based on an obvious-

to-try standard which is improper under the facts of this case. Applying such a standard effectively destroys the patent system, since any result, regardless of how unexpected, nonobvious, or unpredictable, can be achieved, at least theoretically, by a trial-and-error combination of known elements.

Blonder-Tongue has not presented any persuasive reason why the concurrent findings of the courts below should be reversed.

Question 4 (re Fraud, Unfair Competition, and Antitrust).

No fraud was committed during the prosecution of the Mayes et al. patent, as found by the Court of Appeals for the Seventh Circuit. If any trace of "unclean hands" resulted as a result of the prosecution of the Mayes patent, it is confined to that patent alone and does not affect the enforceability of the Isbell patent.

The courts below found that no conspiracy, acts of unfair competition, or antitrust violations were committed by either of the respondents, without which there is no basis for holding the Isbell patent to be unenforceable.

Question 5.

The trial court followed the procedure established by this Court in *Graham* v. *John Deere Co.* for considering the question of nonobviousness, even if its findings were not explicitly set forth. The Court of Appeals had no difficulty in affirming the propriety of the trial court's decision.

ARGUMENT.

QUESTION 1.
(re Triplett v. Lowell.)

In the case of *Triplett* v. *Lowell,* 297 U. S. 638 (1936), this Court held that a determination of patent invalidity is not res judicata binding the patentee in subsequent litigation against a different defendant. The Court has requested the parties in this case to address themselves to the question of whether the above holding in the *Triplett* case should be adhered to, and if not, whether the prior determination of invalidity in the *Winegard* litigation binds the respondents in this case.

While we agree with Blonder-Tongue that the *Triplett* rule should not be reversed, we consider that the Court has asked the parties to discuss both sides of the question, and accordingly we will attempt to do so.

To summarize our position, we believe that the *Triplett* rule should not be changed by this Court, for the following reasons:

1. The rule of *Triplett* v. *Lowell* has been the law of the land for many years, and during that time it has, in our opinion, served well both the interests of the public as well as those of patentees. Any change in the rule should be made by Congress only after appropriate hearings and for compelling reasons. The pertinent factors to be considered in deciding whether the rule should be changed are many and complex, and involve balancing the rights of patent owners, accused infringers and the public interest and establishing new procedures designed to protect these various interests while avoiding undue burden

on the courts. For this reason we suggest that any change in the rule should be made only by the legislature, after full and careful hearings of all the factors involved, and, if desirable, with appropriate changes in venue and other provisions which could not be made by this Court.

In this connection, it is of interest to note that Congress has considered the matter several times since the handing down of the *Triplett* rule, most recently in connection with the "Patent Reform Act of 1967", from which the so-called "in rem invalidity" clause was specifically deleted.

2. A change in the *Triplett* rule would make more difficult the establishment of uniform rules and standards for guidance of the lower courts in patent cases. Under its usual procedure, this Court does not grant certiorari in patent cases unless there are conflicting decisions of two courts of appeals. Thus, if the *Triplett* rule were reversed, no effective opportunity would be presented to this Court to review the standards applied in the case of patent actions brought originally in those circuits in which substantially all of the patents are held invalid.

3. Changing the *Triplett* rule would impose an unfair burden on those who, like respondent here, entered into multiple litigation relying on the *Triplett* v. *Lowell* doctrine. Proper means for avoiding individual injustice in such cases can be more readily provided by legislative action. If the *Triplett* rule is to be reversed, we submit that the venue provisions relating to patent infringement actions should also be changed to provide that all infringers may be sued together in one action, without limitations as to residence, place of business, or locale of acts of infringement. It is manifestly unfair to subject a patentee to a game of legal "Russian roulette", in which he may lose all his patent rights, yet stands to win only the right to take the same chance against another defendant.

In the present case, the Foundation was forced to bring multiple actions, in the Eighth as well as the Seventh Circuits, not because it wished to multiply litigation, but because of a need to protect the patent. Under such circumstances, it would be highly unfair to bind a patentee if the patent is held invalid in the first action, yet to leave him vulnerable in the event his patent is upheld.

4. The arguments advanced for changing the *Triplett* rule, on careful examination, are not well founded and do not overcome the disadvantages which a change in the rule would entail.

In general, the rationales propounded contra to the *Triplett* holding fall into the following two categories:

A. Relitigation of patents which have previously been declared invalid represents a substantial and unnecessary burden on the courts and public.

B. Since the public is a silent but important party in interest in all patent litigation, the *Triplett* rule significantly prejudices the public's interest in the elimination of specious patents.

Each of the above arguments for changing the *Triplett* rule will be separately evaluated in the following discussion.

A. The Triplett Rule Does Not Represent a Substantial and Unnecessary Burden on the Courts and Public.

The argument that the *Triplett* rule is burdensome was aptly presented by Judge Schnackenburg in his concurring opinion in the case of *Aghnides* v. *Holden*, 226 F. 2d 949, 951 (7th Cir. 1955), wherein he stated:

> "[A] suit testing the validity of a patent is not a proceeding *in rem* and hence Aghnides may litigate and relitigate again and again the question of validity of his patent as long as he selects a different defendant in each of the infringement suits which he files, thus

avoiding the wholesome doctrine of *res adjudicata*. This queer result is one which we are unable to avoid. It is a situation which is particularly abhorrent when considered against the backlog of untried cases which clogs our federal courts. The latter are cases where the litigant asks only for his day in court, not a plurality of days in court as Aghnides is entitled to under the existing law. The remedy lies not in our hands. The congress could by legislation grant relief."

This position, while on its face appealing to both reason and logic, fails on several grounds.

1. The Holding in Triplett Is Not an Exception to the Doctrine of Res Judicata.

It should be carefully noted that this Court held in *Triplett* that the doctrine of res judicata may not be pleaded as a defense in a subsequent suit *against a different defendant*. This is in effect merely an application of the so-called "mutuality" rule which requires that a person who seeks to claim the benefits of an adjudication upon any matter decided in a prior action be a party or privy in the prior adjudication sought to be relied upon. Restatement, Judgments § 93 (1942).[1]

The mutuality requirement applied in *Triplett* is deeply rooted in the jurisprudence of the courts in this country.

As early as 1887 this Court noted in *Litchfield* v. *Crane*, 123 U. S. 549, 552, that "estoppels to be good must be mutual." Likewise, in the later case of *Bigelow* v. *Old Do-*

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1. Comment d, example 10, to section 93 of the Restatement applies the mutuality rule directly to the factual situation raised in this case, that is:

"10. A brings an action against B for infringement of a patent. B defends on the ground that the alleged patent was void and obtains judgment. A brings an action for infringement of the same patent against C who seeks to interpose the judgment in favor of B as res judicata, but setting up no relation with B. On demurrer, judgment should be for A."

minion Copper Min. & S. Co., 225 U. S. 111, 127 (1912), the Court held, "it is a principle of general elementary law that the estoppel of a judgment must be mutual."

Although the doctrine of mutuality has been criticized by some writers,[2] and a few courts have avowedly rejected the doctrine,[3] it appears, in reviewing the authorities generally cited as indicating an erosion of the doctrine, that the courts in fact have been merely applying the doctrines of stare decisis and comity in spite of their broad language concerning the application of res judicata and rejection of mutuality.

The distinction between the doctrine of res judicata and the doctrines of stare decisis and comity is an important one because application of stare decisis and comity, unlike the strict mechanical rule of res judicata, allows the court to examine the facts of the later-filed suit in order to determine whether they warrant relitigation of the issue decided in a prior suit. Likewise, the doctrines of stare decisis and comity allow the court to examine the rule of law applied in the prior suit in order to insure that the needs of justice have been fully met. As this Court stated in *Mast, Foos & Co.* v. *Stover Mfg. Co.*, 177 U. S. 485, 488-89 (1900):

> "Comity is not a rule of law, but one of practice, convenience, and expediency. It is something more than mere courtesy, which implies only deference to the

2. See generally Currie, *Mutuality of Collateral Estoppel: Limits of the Bernhard Doctrine*, 9 STAN. L. REV. 281 (1957); Currie, *Civil Procedure: The Tempest Brews*, 53 CALIF. L. REV. 25 (1965); Comment, *Mutuality of Collateral Estoppel*, 63 NW. U. L. REV. 209 (1968). It should be noted also that there is ample authority urging the retention of the mutuality doctrine. See Von Moschzisker, *Res Judicata*, 38 YALE L. J. 299 (1929); Moore & Currier, *Mutuality and Conclusiveness of Judgments*, 35 TULANE L. REV. 301 (1961); Greenebaum, *In Defense of the Doctrine of Mutuality of Estoppel*, 45 IND. L. J. 1 (1969).

3. "[T]he doctrine of mutuality is a dead letter." *B. R. DeWitt, Inc.* v. *Hall*, 19 N. Y. 2d 141, 147, 225 N. E. 2d 195, 278 N. Y. S. 2d 596 (1967).

> opinion of others, since it has substantial value in securing uniformity of decision, and discouraging repeated litigation of the same question. But its obligation is not imperative. If it were, the indiscreet action of one court might become a precedent, increasing in weight with each successive adjudication, until the whole country was tied down to an unsound principle. Comity persuades; but it does not command. It declares, not how a case shall be decided, but how it may with propriety be decided. It recognizes the fact that the primary duty of every court is to dispose of cases according to the law and the facts; in a word, to decide them right. . . . Clearly it applies only to questions which have been actually decided, and which arose under the same facts."

Two recent patent cases are generally cited as abolishing the mutuality requirement in the application of the doctrine of res judicata. However, both of these cases, *Nickerson* v. *Pep Boys—Manny, Moe & Jack*, 247 F. Supp. 221, 224 (D. Del. 1965), and *Technograph Printed Cir., Ltd.* v. *Packard Bell Elec. Corp.*, 290 F. Supp. 308, 318 (C. D. Cal. 1968), rested their decisions on the fact that no new evidence concerning validity was presented by the patentee in the subsequent suit. If the strict legal doctrine of res judicata or collateral estoppel had been mechanically applied in these cases, the "new evidence" considered and discussed in both of these cases would have been totally irrelevant.[4] How-

4. See *Southern Pac. R. R.* v. *United States*, 168 U. S. 1, 62, 65 (1897). This mechanical application of estoppel to prevent the introduction of new evidence in the subsequent suit brought by the patentee has been used by a district court in only one instance to date. In the case, *Nickerson* v. *Kutschera*, 295 F. Supp. 1 (D. Del. 1969), *rev'd*, 419 F. 2d 983 (3d Cir. 1969), the district court stated:

> "But with all deference to the Courts which have made 'new evidence' the controlling criteria in refusing to apply the doctrine of collateral estoppel to issues decided in a patent infringement action, it would appear conceptually that this test is irrelevant and contrary to controlling precedent in the field of collateral estoppel generally." 295 F. Supp. at 6.

ever, since these courts did consider the "new evidence" issue, they were in effect according the prior decisions comity, as explained by this Court in the above-mentioned *Mast* decision, and which is specifically provided for in *Triplett*.[5] This line of reasoning has been followed in the Third, Seventh, and Ninth Circuits, wherein the "new evidence" was evaluated in disposition of motions for summary judgment by one not privy to the previous litigation.[6]

In the area of patent litigation, there is a special reason why relitigation should not be automatically banned as needless or redundant by strict application of the doctrines of res judicata and collateral estoppel. As recognized by Judge Learned Hand in *Harries* v. *Air King Prods. Co.*, 183 F. 2d 158, 162 (2d Cir. 1950), the issue of patent validity is "as fugitive, impalpable, wayward, and vague a phantom as exists in the whole paraphernalia of legal concepts. . . . If there be an issue more troublesome, or more apt for litigation than this, we are not aware of it."[7]

It is submitted that due to the intrinsic nature and complexity of the subject, the first decision finding invalidity can be quite wrong or based on an insufficient record or presentation through no fault of the patentee.[8] The inflex-

5. "[T]he earlier decision may by comity be given great weight in a later litigation and thus persuade the court to render a like decree. . . ." 297 U. S. at 642.

6. See *Nickerson* v. *Kutschera*, 390 F. 2d 812 (3rd Cir. 1968); *Technograph Printed Cir., Ltd.* v. *Methode Elec., Inc.*, 356 F. 2d 442 (7th Cir. 1966); *Technograph Printed Cir., Ltd.* v. *Packard Bell Elec. Corp.*, 290 F. Supp. 308 (C. D. Cal. 1968).

7. As noted in *Triplett* (297 U. S. at 643-44), this Court has several times held valid claims of a patent held invalid by a Circuit Court of Appeals in an earlier suit brought by the patentee against another defendant. See *Expanded Metal Co.* v. *Bradford*, 214 U. S. 366 (1909); *Diamond Rubber Co.* v. *Consolidated Rubber Tire Co.*, 220 U. S. 428 (1910); *Abercrombie & Fitch Co.* v. *Baldwin*, 245 U. S. 198 (1916).

8. See *Technograph Printed Cir., Ltd.* v. *United States*, 372 F. 2d 969, 977-78 (Ct. Cl. 1967).

ible and mechanical rule of res judicata is not appropriate for this type of litigation. The more flexible and equitable doctrines of stare decisis[9] and comity fully enable the courts to properly give great weight to the prior finding of invalidity while permitting review of any new evidence presented at the pre-trial and summary judgment stage, and grant the courts of the various circuits the independence contemplated by the *Mast* decision to insure that the ends of justice have been fulfilled.[9a]

2. Relitigation of Patents After an Initial Finding of Invalidity Does Not Represent a Significant Burden on the Federal Courts.

In 1961 the Subcommittee on Patents, Trademarks, and Copyrights of the Senate Judiciary Committee published the most comprehensive study to date concerning patent litigation in the federal district courts.[10] The study, covering the ten year period from 1949 through 1958, reported that during this period a total of 6,057 patent suits were commenced.[11] Of this number, only 62 cases (approximately

9. For a patent case involving application of stare decisis (i.e., the binding effect of a prior judgment in the *same* circuit), see *Rains* v. *Jil-Mic, Inc.*, 301 F. Supp. 545 (S. D. N. Y. 1969).

9a. It should also be noted at this point that under 35 U. S. C. § 285 (1954), a court has the power to award attorneys' fees to a defendant sued in bad faith for infringement of an obviously invalid patent. See *Dole Valve Co.* v. *Perfection Bar Equip., Inc.*, 318 F. Supp. 122 (N. D. Ill. 1970). This section certainly mitigates against any abusive relitigation of patents properly held invalid in a prior suit against a different defendant.

10. STAFF OF SUBCOMM. ON PATENTS, TRADEMARKS, AND COPYRIGHTS, SENATE COMM. ON THE JUDICIARY, 86TH CONG., 2D SESS., *An Analysis of Patent Litigation Statistics* (Comm. Print 1961) [hereinafter cited as 1961 Subcomm. Rep.].

11. *Id.* at 12 (Table 1). According to the most recent annual report of the administrative Office of the United States Courts, during the ten year period from 1959 through 1968 a total of 648,767 civil cases were filed in the U. S. courts; 7,875 of these (approximately 1.2%) being patent cases. 1969 ADMIN. OFFICE OF THE U. S. CTS. REP.

1%) involved patents which were being relitigated after a prior determination of invalidity.[12]

It is interesting to note that the majority of these subsequent suits were terminated without a second adjudication of the validity of the patent.[13] However, nine patents did receive a redetermination on the merits concerning validity,[14] of which seven were found to be valid.[15]

This study makes clear two compelling facts. First, the number of patents which are relitigated after a finding of invalidity is so small that the problem seems to be *de minimis*. Of the total number of patent suits filed during the period studied, only about 1% involved patents which were being relitigated after an initial finding of invalidity. The results of the study permit the conclusion that suits involving relitigation of a previously determined invalid patent represent, on the average, only one out of every 10,000 civil cases filed in the federal courts.

The second compelling fact demonstrated by the study is that a substantial number of the patents which are relitigated after an initial holding of invalidity are held valid in the subsequent litigation. In fact, seven of the nine patents which had their validity redetermined during the period of the study were found to be valid. In view of the substantial weight given by the district courts to a prior holding of invalidity, this remarkable statistic tends to indicate that a patentee will risk the expense of relitigation only where his patent is of unusual merit and he is convinced, almost to the point of certainty, of the error of the prior decision.

It is apparent from these figures that the mechanical

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12. *Id.* at 19 (Table 16).

13. *Id.* at 19 (Note to Table 16).

14. Rollins, *In Rem Invalidity: A solution in Search of a Problem?*, 52 J. PAT. OFF. SOC'Y. 561, 569 (1970).

15. 1961 Subcomm. Rep. 19 (Table 16).

application of res judicata to foreclose subsequent suits on patents held to be invalid may well result in more valid patents being sacrificed than invalid patents being justly suppressed. In any event, surely "the doctrine of judicial finality is not a catch-penny contrivance to dispose of cases merely for the sake of disposition and . . . [clearing] up dockets. . . ."[16]

Further, reversal of the *Triplett* rule would probably lead to a flood of applications for reissue patents. The issues of infringement and validity are so intimately associated that one cannot be sure that a finding of invalidity is not really based on a finding that the patent is invalid if stretched to cover the defendant's acts. Accordingly, patentees would seek to protect their patents by having them reissued with slightly narrower claims.

Any relaxation in the requirement for mutuality in the doctrine of res judicata should, at the very least, insure that some significant benefit will ultimately be achieved toward lessening the case load in the federal courts, which probably cannot be accomplished without a change in venue rules to permit a patentee to join concurrent infringers in the same action, and insure that the ultimate ends of justice to the parties will not be thwarted. It is submitted that reversing the *Triplett* rule will achieve neither of these desired ends.

3. The Right To Be Heard Is Guaranteed by the Constitution.

It is a constitutional necessity that a person be afforded a right to be heard before he is estopped on the basis of a previous suit.[17] Therefore, by abandonment of mutuality as

16. 1B MOORE, FEDERAL PRACTICE par. 0.412 [1], at 1811 (2d ed. 1965).

17. *Hansberry* v. *Lee*, 311 U. S. 32 (1940); *Postal-Tel. Cable Co.* v. *Newport*, 247 U. S. 464 (1918). See generally 1B MOORE, FEDERAL PRACTICE par. 0.406 [2] (2d ed. 1965).

a requirement for the application of res judicata, there still remains the constitutional requirement that the patentee, in order to be bound by the prior judgment of invalidity, must have had his opportunity to be heard, his "day in court".

There is no question that the patentee has had his day in court against the defendant in the prior suit holding invalidity, and the judgment is conclusive between them. However, the patentee has had no opportunity to be heard in opposition to the defendant in the subsequent suit. As Judge Goodrich stated in *Hornstein* v. *Kramer Bros. Freight Lines*, 133 F. 2d 143, 145 (3d Cir. 1943), the conclusive effect of a prior adjudication should not:

> "... go so far as to make the finding in one man's case in a personal action a conclusion of ultimate truth. A law suit is not a laboratory experiment for the discovery of physical laws of universal application but a means of settling a dispute *between litigants*. That which is settled as a fact between them through a given piece of litigation under the principles of res judicata, binds only the parties themselves and those who are in such relation to the parties as to be considered in privity with them."

To contend that the patentee has had his day in court, when the defendant in the subsequent suit uses the prior defendant's judgment finding invalidity against the patentee, clearly begs the question: His day in court against whom and on what issues? When the patentee was a party to the prior suit in which a judgment of patent invalidity was rendered, and the defendant in the subsequent suit was a stranger to that suit, the patentee has no more had his day in court against the sebsequent defendant than if the subsequent defendant had been a party to the suit and the patentee a stranger to it.[18]

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18. See Moore & Currier, *Mutuality and Conclusiveness of Judgments*, 35 TUL. L. REV. 301, 310 (1961).

4. Overruling the Triplett Rule Would Adversely Affect the Current Process for Sustaining Good Patents and Rectifying Erroneous Holdings.

Under the present practice of this Court, certiorari is seldom granted in patent cases unless there is conflict in the appellate court decisions,[19] so that in most instances a patentee cannot expect to have an erroneous judgment of invalidity rectified by this Court, unless he can try again against a different defendant. It is therefore not uncommon for a patentee who has met rebuff (like respondent here), and who sincerely believes that an error has been committed, to seek to sustain his grant in another court. As noted above, this Court "has several times held valid the claims of a patent which had been held invalid by a Circuit Court of Appeals in an earlier suit brought by the same plaintiff against another defendant." *Triplett* v. *Lowell*, 297 U. S. at 643. If the res judicata effect of a judgment of invalidity were expanded, the first court to adjudge that a patent is invalid would, in effect, be the final arbiter for all rights and duties flowing from that patent. To escape this objectionable result of unilateral estoppel, in the interests of justice, this Court would be forced to alter its normal practice and consider granting certiorari more readily in the absence of conflicting decisions.

B. The Triplett Rule Does Not Significantly Prejudice the Public's Interest in the Elimination of Specious Patents.

In the recent case of *Lear, Inc.* v. *Adkins*, 395 U. S. 653, 674 (1969), this Court reaffirmed the well-founded public interest in the elimination of specious patents. The argument may be made that the *Triplett* rule, in allowing the

19. U. S. Sup. Ct. Rev. R. 19 ("Considerations Governing Review on Certiorari"); *Universal Oil Prods. Co.* v. *Globe Oil & Ref. Co.*, 322 U. S. 471, 473 (1944); *Triplett* v. *Lowell*, 297 U. S. 638, 644 (1936).

relitigation of previously adjudicated patents, is contrary to this public interest. This argument, however, ignores the fact that it is equally in the public interest that a good patent be ultimately upheld as that a bad one be definitively stricken.[20]

As noted above, because of the intrinsic nature of the subject, the issue of patent validity is a troublesome matter involving greater than average uncertainty. For this reason, it would be in the public interest in promoting the progress of science "by securing for limited times to . . . Inventors the exclusive Right to their . . . Discoveries,"[21] to allow patentees a degree of protection against an erroneous decision at least equal to that afforded to the ordinary litigant. Hence, making patent judgments an exception to the general mutuality rule of res judicata would run directly against the policy of the constitutional patent provision.

In addition, a reversal of the *Triplett* rule would adversely affect the public interest in promoting and validating good patents. The framers of the Constitution, Congress, and practically every developed country in the world, even those with a Communistic background, consider a strong patent system essential to its continued progress. This country, in particular, must rely to an increasing extent on the native ingenuity of its people, now that its advantages in natural resources have largely disappeared. It is no answer to say that inventions will be made even without the existence of a strong patent system. They may be made, but in most cases cannot be promoted without protection. Who will spend the vast sums of money needed to develop and test a new product, even one having vast potential for promoting the common good, such as a new

20. *Technograph Printed Cir., Ltd.* v. *United States,* 372 F. 2d at 978.

21. U. S. CONST. art 1. § 8.

medicine, herbicide, or insecticide, if he does not have some assurance that he can recover the expenses of such testing as well as those incurred with other products which fail? Even the government cannot fill this role, since the government will finance only those developments which are already advanced to the point where success seems reasonably certain.

Significantly, Congress has several times considered the *Triplett* rule and has refused to disturb it. In its most recent consideration of the subject, Congress has specifically deleted from the original version of the "Patent Reform Act of 1967"[22] this so-called "in rem invalidity" clause.[23] Therefore, this Court should refrain from altering the mutuality of res judicata rule enunciated in *Triplett*, a doctrine based upon sound legal and constitutional grounds, in view of the historical affirmative position taken by Congress concerning the subject.

QUESTION 2.

(re Retroactive Application of Change in Triplett Rule.)

Even if this Court decides not to adhere to its prior holding in *Triplett*, the determination of invalidity in the *Winegard* litigation should not bind respondent in this case.

It is the general rule that the doctrine of res judicata will not apply where the prior judgment sought to be relied upon is not a final judgment. Restatement, Judgments § 41 (1942). Since finality is not accorded a judgment until affirmance in the event of an appeal, an appeal does not automatically stay the enforcement of an order, "but it does suspend the force of the order as a conclusive deter-

22. S. 1042 90th Cong., 1st Sess. § 294 (1967).

23. The most recent version of that Bill in Congress, which has deleted the "in rem invalidity" clause, is S. 1246, 91st Cong., 1st Sess. (1969).

mination of the rights of the parties." 4A C. J. S. *Appeal & Error* § 626, at 422 (1957).

Thus, since the *Winegard* decision was on appeal to the Eighth Circuit Court of Appeals at the time the district court decided this case, it could not operate as res judicata as to any issues decided in the subsequent litigation against respondent. In fact, the *Winegard* decision is not yet final, since there is pending before this Court a petition by the Foundation for reconsideration of the denial of a writ of certiorari to the Eighth Circuit Court of Appeals (Oct. Term, 1968, No. 993). In any event, both the *Winegard* suit and this suit were filed almost simultaneously, and this Court should not allow the accident of the first decision to be filed to control not only the rights of the parties but the jurisdiction of the district courts.

Another reason this Court should not bind respondent in this case to the determination in the *Winegard* litigation, is that, in the current state of the law, respondent Foundation had every justification for believing that it would be able to pursue its claim against different defendants regardless of the judgment rendered in the first suit to be concluded. This had been the holding of this Court,[24] and the practice of multiple suits in patent litigation has long been recognized by the lower courts.[25] Consistent with this understanding, respondent Foundation filed six patent infringement suits in various courts against different defendants. It would be grossly inequitable to now tell respondent, at this stage, that defeat in the *Winegard* litigation

24. In addition to *Triplett*, see *Maytag Co.* v. *Hurley Mach. Co.*, 307 U. S. 243, 245 (1939).

25. See discussion in *Technograph Printed Cir., Ltd.* v. *United States*, 372 F. 2d at 973-75.

now bars it from recovering in this action against petitioner.[26]

Still further, respondent believes that the decision in the *Winegard* case was based on a legal standard which is contrary to those established by this Court in *Graham* v. *John Deere Co.*, 383 U. S. 1; and *U. S.* v. *Adams*, 383 U. S. 39. Since the *Winegard* case is still not final, it would be unfair for this Court to hold that respondent is barred by the *Winegard* case and thereafter to hold that *Winegard* was improperly decided. It would also be unfair to leave the *Winegard* decision standing, if this Court agrees that the decision was based on an improper standard of obviousness, after having considered the matter.

QUESTION 3.

(re Isbell Patent.)

A. Due Process.

As a prelude to its argument on the validity of the Isbell patent, Blonder-Tongue again complains of its alleged deprivation of due process at the trial. As we pointed out earlier, if Blonder-Tongue intended to make this alleged deprivation a basis for its petition to this Court, it should have presented it as a question for review. Because of its failure to do so, this Court should ignore entirely the extended argument made on pages 17 through 23 of its brief. We might add only that B-T has not challenged the finding of the court below (A. 55) that no offer of proof was made as to facts which would have been shown but for the alleged lack of due process.

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26. Unlike the licensor in *Lear, Inc.* v. *Adkins*, 395 U. S. 653 (1969), it certainly cannot be said that respondents in this case, "given the extent to which the . . . principle had been eroded by our prior decisions, . . . could not confidently rely upon the continuing vitality of the doctrine." 395 U. S. at 674.

B. The Matter of "Obviousness".

Applying the "basic factual inquiries" which this Court set out in *Graham* v. *John Deere Co.*, 383 U. S. 1, 17-18 (1966) the District Court for the Northern District of Illinois held that the invention made by Isbell was nonobvious, a conclusion which was affirmed by the Court of Appeals for the Seventh Circuit. The Court of Appeals for the Eighth Circuit came to a contrary conclusion in the *Winegard* case on essentially the same prior art, but without the benefit of the testimony of Dr. DuHamel, whose article and patent were the closest prior art, as to what was obvious to him as one skilled in the art. We submit that the Seventh Circuit properly applied the standard of obviousness defined by this Court, while the Eighth Circuit applied an improper standard.

The findings of fact made by the trial court relative to Isbell's invention, which were quoted with approval by the Court of Appeals for the Seventh Circuit (A. 58-60), are set out on pages 73-75 of the Appendix. The subject matter of the invention is so highly complex and technical that we consider it beyond the compass of this brief as well as that of oral presentation to delve into all of the details of the problems which faced the art and how these problems were solved in a nonobvious manner by Isbell's invention (A. 155-166). Without departing from the facts found by the courts below we will attempt here to highlight and amplify those findings so as to indicate to this Court that the findings were indeed based on substantial evidence.

As the trial court found (A. 74), the simplest antenna which has been used for television reception is a simple dipole, consisting of a pair of linear elements extending from each side of a transmission line (R. 157). It is characteristic of a dipole that it is narrowly receptive to radiation of a single frequency. Accordingly, a single dipole

is not well adapted for use over a broad range of frequencies. A seemingly obvious way of extending the range of operation of a single dipole is to provide a second dipole receptive to a different frequency and somehow to interconnect the two dipoles so that they work together (rather than in opposition, which is also possible) to cover an extended range of frequencies (A. 163).

Building up the frequency coverage of an antenna in this manner, piece by piece, is obvious to try, but one immediately finds that the obvious is unworkable (A. 163). The difficulty arises from the fact that when the individual active elements such as dipoles are brought into proximity, they no longer operate in the same manner they would if each element alone occupied the space. Each active element influences and is influenced by every other active element in close proximity. As a result, the performance of a given antenna of any complicated structure cannot be predicted, even if the individual performance characteristics of the elements are known, in the absence of a theory which makes such prediction possible. In the absence of such a design theory or method, one can only assemble an antenna array and test its performance after construction rather than design the antenna beforehand with a reasonable expectation that its performance will be as expected (A. 165).

The art knew many individual active elements which could be combined in various configurations to produce antenna arrays of varying degrees of complexity. Some of these elements, e.g., simple dipoles, folded dipoles, triangular dipoles, spirals, cones, horns, etc., are illustrated in the exhibits introduced below (PX-30, A. 412, R. 308; PX-31, A. 413, 243; PX-32, A. 414, 246; PX-34, A. 415, 247; PX-36, A. 416, 248; PX-37, A. 417, 250; PX-38, A. 418, 251; PX-51, A. 427, 262) and are shown in the prior art (DX-1, A. 475, R.

235; DX-3, A. 477, R. 236; DX-4, A. 481, R. 236; DX-6, A. 483, R. 238; DX-14, A. 510, R. 283). The configuration of an element which might be used as an active element in an antenna array is limited only by the imagination of the designer. The permutations and combinations with which these active elements can be combined is countless, so that one could not even begin to try them all, even if he had the time and could afford the expense. Unless, therefore, there exists some theory which indicates that a particular combination of elements will yield a given result with some degree of assurance, the likelihood that a designer would stumble on a particular configuration by chance is comparable to the likelihood that one could compose Lincoln's Gettysburg Address by selecting words at random from a dictionary.

1. Log-Periodic Antennas.

The antennas covered by the Isbell patent belong to a class of antennas known as logarithmically periodic (log-periodic) arrays, composed of repeating design units (elements) called cells, which are generally of similar shape but varying size (A. 166).

It is characteristic of a log-periodic antenna that its response characteristics will be cyclic, repeating periodically as the frequency is increased or decreased. The nature of the response characteristics over one period is determined by the properties of the design cell. If a design cell can be found which, when combined into an array of cells, has uniform characteristics over one period, it follows that the antenna array will have uniform characteristics over its entire design range of frequencies, i.e., it will have frequency-independent performance (A. 166, 318, 320).

In this connection, the distinction between a log-periodic structure and a log-periodic frequency-independent antenna should be noted. Any structure composed of repeating cells

whose dimensions are related by a constant scale factor can be said to be log-periodic in form, but would not necessarily or even probably have frequency-independent characteristics when used as an antenna (A. 166, 192, 238).

As the District Court found, the log-periodic design principle was developed in 1954 (A. 74). Much difficulty was encountered, however, in putting the principle to practical use because of the problem of finding design cells having constant performance characteristics over a period, which would lead to frequency-independent performance. As a result of this difficulty, only three or four frequency-independent log-periodic antennas had been developed prior to the time that Isbell made his invention, even though many attempts had been made by skilled antenna designers at the University of Illinois and elsewhere (A. 232, 241, 267).

In view of the unpredictability of performance of antennas of the log-periodic class, of which Isbell's is one, the courts below quite properly found that Isbell's design was nonobvious. Both courts were properly impressed by the testimony of Dr. DuHamel, whose article and patent were the closest prior art, that the Isbell approach was not one which was obvious to him and that in fact that Isbell's result surprised him when he first learned of it (A. 269). Dr. DuHamel's testimony was not available to the Court of Appeals for the Eighth Circuit and may well represent the key to the different conclusions arrived at by the two Courts of Appeals.

2. The Prior Art Does Not Teach the Invention of the Isbell Patent.

With the exception of DuHamel patent 3,079,602 (DX-14, A. 510, R. 283) and the DuHamel and Ore article (DX-6, A. 483, R. 238), none of the references cited by Blonder-Tongue deals specifically with log-periodic antennas. Rather, all of the references, with the exceptions mentioned, are pertinent

to Isbell's invention only to the extent that these references show some isolated constructional feature of Isbell's antenna, but in otherwise different combinations with other elements. The K. O. antenna (DX-4, A. 481, R. 236) was found by the trial court to be "significantly different from a log periodic antenna" (A. 79).

The issue, of course, which is presented by prior art of this type is whether it would be obvious to one skilled in the art to isolate from each of the cited references a selected portion of an antenna (not taught by the reference itself) and to combine these isolated portions in the manner taught by Isbell.

We submit that without the teachings of the Isbell patent as a guide, it would have been impossible for one ordinarily skilled in the art to select from the myriad of individual antenna elements and the multitude of ways in which these elements can be and have been combined, the precise configurations covered by Isbell. The mere fact that the elements individually were old does not support a finding that the combination is therefore unpatentable, since as this Court said in *United States* v. *Adams,* 383 U. S. 39, 50:

> "It begs the question, and overlooks the holding of the Commissioner and the Court of Claims, to state merely that magnesium and cuprous chloride were individually known battery components. If such a combination is novel, the issue is whether bringing them together as taught by Adams was obvious in the light of the prior art."

3. The Isbell Invention Was Nonobvious.

The conclusion that the Isbell patent is valid is fully supported by the findings of the courts below:

1. At the time of the invention, it coulld not be predicted which, if any, log-periodic structures would operate in a frequency independent manner (A. 62, 75).

2. Dr. DuHamel, an expert in the field and the co-inventor in one of the main references relied on by Blonder-Tongue (DX-14, A. 510, R. 283) who was working in the field of log-periodic antenna design at about the same time, failed to achieve Isbell's construction because it was not obvious to him, and moreover was surprised to learn that such a structure worked (A. 63, 64, 78, 268, 269).
3. None of the prior art references cited by defendant teaches or suggests, alone or in combination, a log-periodic array employing simple dipoles (A. 79, 256).
4. "Secondary considerations" of commercial success, long felt but unsolved needs, failure of others, etc., bolster the conclusion of nonobviousness (A. 78, 257).

Of these concurrent findings, Blonder-Tongue has attacked primarily the one stating that the performance of log-periodic antennas was unpredictable. Blonder-Tongue attempts to argue the case de novo by reference to Quarterly Report No. 1 (DX-7, A. 496, 213), from which it has lifted a small portion out of context without showing what the quoted statement refers to specifically. The excerpt quoted on pages 25-26 of its brief relates to a class of antennas which are self-complementary (PX-55, page 18-14, A. 429, 443, R. 347) and made of sheet metal, and these statements are limited to such structures. The fact is that Isbell's dipole array does not fall into this self-complementary category (A. 63, 64), and its operation cannot be predicted, as the art itself recognized and the courts found. Further, Blonder-Tongue's comments concerning Isbell's planned investigation of thin linear elements ignores the fact that there are many varieties of log-periodic structures having thin linear elements, most of which do not work (e.g.,

PX-36, A. 416, 248, 249; PX-37, A. 417, 250, 251; PX-38, A. 418, 251, 252).

Blonder-Tongue's attempt to characterize the operation of Isbell's antenna as "predictable" is contradicted by the prior art itself as well as by the findings of three courts which have considered the matter (A. 62, 78, 94-95). Moreover, the basis for B-T's argument is taken out of context and does not support the conclusion which B-T would like this Court to accept.

4. Unpredictability of Result Cannot Be Ignored in Determining Nonobviousness.

Another attack by Blonder-Tongue on the validity of the Isbell patent is based on the legal distinction between "predictability" and "obviousness". We grant that the two concepts are not fully interchangeable and that the standard for patentability expressed by this Court is based on non-obviousness rather than unpredictability. We submit, nevertheless, that predictability is a major factor to be considered in resolving the issue. As the C. C. P. A. said in *Application of Pantzer*, 341 F. 2d 121, 126 (1965):

> "In other words, an invention can be said to be obvious if one ordinarily skilled in the art would consider that it was logical to anticipate *with a high degree of probability* that a trial of it would be successful." (Emphasis added.)

In *Mandel Bros., Inc.* v. *Wallace*, 335 U. S. 293, this Court held that the results of a mere routine investigation would not be unobvious even though the specific result was unpredictable, when it was apparent to one skilled in the art that "he should make the simple experiment that was made here . . .". The investigation involved in *Mandel Bros.* required only the routine substitution of one compound for another, when the general nature of the substituents was known and only one variable

had to be considered. In the present case the investigation is not routine, since the number of variables and the possible combination of these variables is practically unlimited.

At the time Isbell's invention was made, there were no guidelines which could be used to estimate success in the design of a log-periodic antenna with any degree of probability, let alone with a "high degree". This is strikingly illustrated by the fact that only three or four frequency independent antennas were found prior to Isbell out of many designs made by skilled designers (A. 232, 241); that slight differences in construction had profound effects on performance (A. 248, 249); and that no explanation for the failure of some of the unsuccessful designs could be given (A. 243).

Blonder-Tongue argues (Brief, p. 25) that "the only real issue was the obviousness of trying or using Isbell's type of straight wire antenna; and as to this, Dr. Mayes had to concede that most of them operated 'satisfactorily' ". Blonder-Tongue's reliance on the testimony of Dr. Mayes in this respect is both misplaced and misleading, since his statement referred solely and specifically to antennas having Isbell's structure (A. 317):

> "Q. Were there a hundred attempts to achieve operation with a structure of the Isbell patent, Plaintiff's Exhibit 1?
>
> A. With that specific structure, you mean?
>
> Q. Yes.
>
> A. Well, I would say that there were quite a number of models built. Most of them operated satisfactorily."

The fact that the operability of Isbell's antenna, after it was conceived by Isbell, was proved by the construction and testing of a number of models thereof does show that it was obvious to try Isbell's structure, as Blonder-Tongue implies.

C. The Purported Publication of QER-2.

On pages 26-29 of its brief, Blonder-Tongue presents the argument that the Isbell patent is invalid because of the "publication of Quarterly Engineering Report No. 2 (QER-2) at the University of Illinois more than 1 year prior to the filing date of the patent". It should be noted that this issue is not fairly encompassed within the questions presented for review by this Court nor does it play any part in the conflict in the decisions of the Courts of Appeals. Although this issue was covered in the Eighth Circuit, neither the District Court nor the Court of Appeals of the Eighth Circuit made any reference to this report in their decisions. On the other hand, both the District Court and the Court of Appeals in the Seventh Circuit considered the question and found that no publication occurred prior to May 5, 1959, on which date the report was mailed to those persons on the distribution list (A. 57, 80, 81).

While we believe that Blonder-Tongue's argument should be ignored as not coming within the questions presented for review, we will nevertheless briefly summarize our position on this point. We have no quarrel with the law which has been cited by Blonder-Tongue relating to the facts. When the facts concerning the purported publication of a reference are ambiguous, however, as in the present case, it is the intent with which the purported act of publication is carried out which is controlling. As the Court of Appeals for the Sixth Circuit said in *Hamilton Laboratories, Inc.* v. *Massengill*, 11 F. 2d 584, 585 (1940):

> "We think intent that the fruits of research be available to the public is determinative of publication under the statute, whether the paper be printed or typewritten, . . ."

Thus, the actual unrestricted *deposit* of a single copy of a reference in a library evidences the intent on the part of the publisher to relinquish his control over the publication and to make it thereafter available to the public. Similarly, other *acts* evidencing the intention to publish, which therefore constitute publication, are sale or exposure to the public for sale or otherwise, and the announcement of availability to the public.

The receipt of the printed copies of the Report in Miss Johnson's office on April 30, 1959 is an ambiguous fact which does not establish publication. It should be remembered that Miss Johnson served a dual capacity at the time. In addition to her main duties as Technical Editor of the Publications Office, charged with seeing that the reports emanating from the Department were properly edited, printed, and distributed (A. 326, 327), Miss Johnson also functioned as the custodian ("librarian") of a collection of publications which were kept primarily for the convenience of members of the University staff (A. 328). When the printed copies of QER-2 were returned by the printer to Miss Johnson's office on April 30, 1959, she received them in her role as Technical Editor and not as custodian of the "local library". From the time the report was so received on April 30, 1959, until it was admittedly published by mailing on May 5, 1959, there is no evidence to establish an intent to publish during the intervening period. The printed copies of the Report remained in wrapped packages as received from the printer (DX-22, pp. 241-243, R. 289). There was no release of any copy to the public, no announcement of availability, nor any actual filing within the collection of the local library. There was in short nothing that would establish any intent to publish the report prior to May 5, 1959.

Blonder-Tongue's argument that QER No. 2 was published

prior to March 5, 1959 is therefore seen to be based solely on Miss Johnson's testimony concerning the purported "availability" of this Report prior to its publication date of May 5. That the Report was physically available is conceded, but no evidence of an intent to publish is present. Even Miss Johnson's answer to the question whether the Report would have been available to any member of the public evidences equivocation. Her answers "Very likely" and "To my knowledge, yes" (DX-22, pp. 216, 217, R. 289) indicate only that Miss Johnson was expressing her own opinion as to the availability of the references, since any action she might have decided to take in response to a request for a copy of the Report could well have been countermanded by her superiors.

Mr. Lawlor, Miss Johnson's immediate superior, testified that the policy of the Department was that the copies of work reporting sponsored research, as in the present case, be distributed first to those on the official distribution list, and then to any others who were interested (A. 329). Accordingly, it has not been shown that Miss Johnson would have been free to distribute copies of the Report to members of the public prior to the distribution to those on the distribution list, in spite of her opinion that the Report was available.

The burden of establishing that the Isbell patent is invalid by reason of the publication of QER-2, like any attack on the validity of a patent, is on the proponent, Blonder-Tongue (35 U. S. C. 282). We believe that Blonder-Tongue has not met its burden and the findings of the courts below that no publication occurred are fully supported by the evidence.

D. Purported Anticipation by the Prior Art.

On page 29 of its brief, Blonder-Tongue attempts in a fanciful manner to show that DuHamel patent 3,079,602 (DX-14) represents a complete anticipation of Isbell's invention. Specifically, Blonder-Tongue refers to Figure 5 of this patent as showing the same structure as that of the Isbell patent, "with the one exception that the dipoles are triangular loops instead of straight wire" in view of the fact that triangular loop dipoles, as well as the straight wire dipoles used by Isbell, were both known. Granting that triangular loop dipoles and simple straight dipoles were both known to the art prior to Isbell's invention in simple structures such as shown in DX-2 (A. 475, 476), as Blonder-Tongue contends, the issue then is whether the substitution of one for the other in DuHamel's structure was obvious at the time that Isbell made his invention. The evidence shows clearly that such a substitution was not obvious.

Perhaps the most convincing evidence against Blonder-Tongue's position is the testimony of Dr. DuHamel, the co-inventor of the patent on which Blonder-Tongue relies. Dr. DuHamel testified during the trial that not only was Isbell's structure not obvious to him when his patent application was filed, but also that he was surprised that Isbell's invention worked when he later heard of it, and was disappointed with himself in not having also thought of it (A. 269). Clearer proof that the Isbell structure was not obvious to those skilled in the art can hardly be imagined.

Dr. DuHamel's failure to arrive at Isbell's structure is understandable in view of the disclosure of his patent. Although the DuHamel patent discloses that the angle between the booms of the antenna may approach 0°, there is no teaching in this patent of the use of spaced dipoles. Each of the triangular elements 51(e), 51(d), 51(c), etc.,

in this patent is connected directly to its adjacent similar elements. Accordingly, there is *no* spacing *between* elements and therefore the arrangement cannot suggest Isbell's construction, in which the spacing between adjacent dipoles varies from one end of the array to the other. Since, in fact, each of the triangular elements is directly connected to each of its neighbors, there is *no* transmission line as such, corresponding to that used in Isbell, and therefore it cannot be said that the transmission line is transposed in connection between adjacent elements, as in Isbell.

There is, moreover, no disclosure or teaching in the DuHamel patent that his disclosed structures are made up of dipoles, simple or otherwise (A. 288). Certainly, when the structure is in the preferred form wherein the two booms are angularly widely separated, the elements of the structures are too far apart to operate as dipoles. In this respect, see also the discussion of DuHamel and Ore's log-periodic structures in Jasik's handbook (PX-55, p. 18-12, A. 429, 441, R. 347), wherein they are described as non-planar, which is the obviously preferred embodiment.

There is, therefore, no suggestion to one skilled in the art that the triangular elements (not dipoles) having zero spacing between adjacent elements should be replaced by simple *dipole* elements of a variable spacing, in accordance with the Isbell patent. In making this argument, B-T is obviously using only hindsight, in the light of the teachings of the Isbell patent, rather than what would have been obvious to one skilled in the art at the time.

E. Infringement of the Isbell Patent.

On pages 30-33 of its brief, Blonder-Tongue argues that, regardless of its validity, the Isbell patent is not infringed by Blonder-Tongue's antenna structures. This argument represents still another attempt by Blonder-Tongue to re-

view questions not properly before this Court. Only the validity and enforceability of the Isbell patent are encompassed within the scope of the questions presented by Blonder-Tongue for review. Both the District Court and the Court of Appeals for the Seventh Circuit found that Blonder-Tongue's antennas were within the scope of the Isbell claims and were therefore infringements. The courts in the Eighth Circuit expressed no opinion on this subject since that action involved the non-analogous products of another manufacturer.

As to Blonder-Tongue's contention that its antennas do not have coplanar elements, the District Court in the Seventh Circuit found as a fact that "the Blonder-Tongue antennas' dipole elements are separated by not more than 1/18 wave-length, making them substantially coplanar" (A. 84), a finding which was affirmed by the Court of Appeals, which held, "The District Court concluded these elements are substantially coplanar, and we agree." (A. 68.)

These concurrent findings of a fact of the most technical nature should not be reviewed by this Court. The finding is amply supported by the evidence, and it was not a basis for the grant of the writ of certiorari by this Court.

F. The Alleged Unenforceability of the Isbell Patent.

Ignoring completely the findings of the courts below that no fraud was involved in the prosecution of the Mayes et al. patent, and that no acts of unfair competition or antitrust violations in the marketplace had been committed either by the Foundation or its licensee JFD, Blonder-Tongue nevertheless alleges that the Foundation is guilty of unclean hands and that therefore the Isbell patent should not be enforced regardless of its validity.

Of the alleged unfair competition and antitrust violations catalogued by Blonder-Tongue, only two represent activ-

ities in which the Foundation played any role and for which, therefore, it might be held accountable. These are (1) the purported fraud in the prosecution of the Mayes et al. patent and (2) the purported impropriety of issuing news releases concerning the litigation by the Foundation against Blonder-Tongue.

As to the news releases, the District Court found (A. 86):

> "A review of the evidence demonstrates clearly that such allegations are wholly without basis in fact."

Blonder-Tongue has not shown that the trial court's finding was not supported by the evidence presented in the case. Every single one of the alleged violations set out on pages 42 and 43 of Blonder-Tongue's brief was considered specifically by the trial court, who found no evidence whatsoever to establish the charges. Blonder-Tongue's argument relative to these violations is based only on its own allegations rather than on competent evidence in the record.

In this connection, some of Blonder-Tongue's allegations are so widely divergent from the facts as to appear to be deliberate misrepresentations. For example, at the bottom of page 43 of its brief, B-T alleges that "the District Court found that suit had knowingly been brought with improper 'venue' against Blonder-Tongue, *with the intended purpose of issuing throughout the trade . . . news releases describing the litigation*' " (Emphasis added). Nowhere in the decision of the District Court is there any finding remotely resembling this allegation. The fact is that the action was instituted in the Northern District of Illinois with proper venue against a distributor of Blonder-Tongue's products. Blonder-Tongue was named as a defendant and served with process in the expectation, eventually justified, that Blonder-Tongue would appear volun-

tarily in order to defend its distributor. Blonder-Tongue's allegation that the suit was brought in this manner with an ulterior motive and in furtherance of a conspiracy is wholly unjustified and unsupported by the facts.

In a similar manner, all of the other allegations of Blonder-Tongue in this regard are also unsupported. Since, however, we believe that the issues will be treated in detail in the brief of JFD we will comment on only the issue directly involving the Foundation, namely, the purported misrepresentation to the Patent Office and its effect on the enforceability of the Isbell patent.

At the outset it should be made abundantly clear that the purported fraud which Blonder-Tongue claims was committed by the Foundation (contrary to the express finding of the Court of Appeals in this regard) occurred during the prosecution of the Mayes et al. patent, which is not directly involved in the review before this Court. The Court of Appeals for the Seventh Circuit found the Mayes et al. patent to be obvious over the art and concluded that, although the failure to inform the Patent Office of the prior publication detracted from the presumption of validity of the Mayes et al. patent, it did not constitute fraud. Blonder-Tongue now seeks to have this Court overturn the finding of the Court of Appeals for the Seventh Circuit, to find that fraud was in fact committed on the Patent Office in connection with the Mayes et al. patent and to hold as a consequence thereof that the Isbell patent is unenforceable. It should be noted that the action against Blonder-Tongue in the trial court was the first instance in which the Foundation attempted to enforce the Mayes et al. patent. The Foundation has accepted the finding of the Seventh Circuit Court of Appeals that the Mayes patent is invalid and has not sought further to enforce it.

On the facts in this case, it has not been established that the Foundation has been guilty of any acts which should lead to a finding of unenforceability of the Isbell patent. Whether the Foundation had been guilty of any wrongdoing whatsoever with respect to the prosecution of the Mayes et al. patent was at least arguable when the action against Blonder-Tongue was commenced, in view of the finding by the District Court that no duty to the Patent Office was breached by the Foundation's actions in the Patent Office. The facts in this case do not evidence the type of deliberate material misrepresentation to the Patent Office as existed in the *Hazel Atlas* and *Precision Instruments Manufacturing Company* decisions cited by Blonder-Tongue.

There is no evidence whatsoever that counsel for the Foundation knew, at the time the affidavit was filed in the Patent Office, that a prior publication equivalent to that cited by the Patent Office existed. Although Dr. Mayes knew of the fact that such a report had been issued by the University, it is easy to see why, under the circumstances, he did not call attention to the existence of the prior report.

The routine and periodic reports issuing from the antenna laboratory did not fall within the category of "publications" as the term is commonly used in academic circles. The reports did not have the characteristics of typical printed publications such as books and journal articles which are widely distributed and freely available. Rather, the University of Illinois reports in question were circulated only among a small group of individuals and organizations named on the circulation list at the end of each report (A. 211). In fact, under similar circumstances, reports of this type have been held not to be "publications", even though there were no restrictions on the circulation and the reports could well have been available to the general

public. See *Ex parte Suozzi*, 125 U. S. P. Q. 445, 447 (P. O. Bd. of App. 1959):

> "*At best, even assuming that there was no prohibition against the author of the report, or the named or other recipients of copies thereof, from giving copies or imparting information contained in said report to others who would be classed as the public in general, this would be merely permissive and would not show unequivocally that there was in fact any publication of the report* on the July 15, 1953 date here of concern." (Emphasis added.)

Although Dr. Mayes knew that these reports had been prepared, it cannot be said, and it certainly has not been demonstrated, that he knew or should have known that they had achieved legal status as "publications" at the time the affidavit was made.

The finding of the Court of Appeals that no fraud had been committed is clearly justified under the circumstances. In any event, any consequences of the prosecution of the Mayes et al. patent should be confined to that patent alone. There is no basis for holding that the Isbell patent should be held unenforceable by reason of the acts occurring during the prosecution of the Mayes et al. patent. Regardless of whether the Mayes et al. patent would now be enforceable, assuming it had been held otherwise valid, Blonder-Tongue has given no reason why the Isbell patent should now be held unenforceable, other than the incidental fact that the applications were prosecuted "together" in the Patent Office and the unsupported allegation that both patents were involved in a "conspiracy" to commit acts of unfair competition and to violate the antitrust laws, contrary to the findings of the courts below.

In order to hold a patent unenforceable as a result of "unclean hands", there should be some connection between the alleged inequitable conduct and the patent. As the

Court of Appeals for the Sixth Circuit said in *Republic Molding Corporation* v. *B. W. Photo Utilities*, 319 F. 2d 347, 349 (1963):

> "What is material is not that plaintiff's hands are dirty, but that he dirtied them in acquiring the right he now asserts, or that the manner of dirtying renders inequitable the assertion of such rights against the defendant."

The only relationship which has been established, and in fact the only relationship which existed between the Foundation and JFD, was that of licensor and exclusive licensee. The only area in which any type of joint activity concerning the Foundation and JFD occurred was in the review of JFD's advertisements to insure that misleading statements involving the name of the University of Illinois or the Foundation were not made (A. 368-371, R. 740, 741, 742). There is no evidence whatsoever to connect the Foundation with any of the other activities set out at length at pages 41-62 of Blonder-Tongue's brief, such as tie-in sales, raiding of employees and patent mismarking. We believe that the evidence in the case fully supports the findings of both courts below that there is no persuasive evidence that any act of unfair competition or antitrust violation was committed by JFD, but even if this Court disagrees, there is no basis for ascribing to the Foundation any responsibility for JFD's acts, or holding that a conspiracy existed between the Foundation and JFD. In the absence of such a conspiracy, which might taint the Isbell patent, there is no basis for holding the patent to be unenforceable.

G. The Winegard Decision.

Relying on substantially the same prior art as was considered by the Court of Appeals for the Seventh Circuit, the Court of Appeals for the Eighth Circuit held the Isbell patent invalid, saying that Isbell's invention lacked "non-obviousness as a matter of law for essentially the same reasons set forth by the Court below" (A. 94). It is submitted that the Court of Appeals for the Seventh Circuit correctly applied the standards which this Court has established for deciding the issue of obviousness, while the Eighth Circuit incorrectly applied those standards.

In holding the Isbell patent invalid, the trial court in the Eighth Circuit said (A. 112):

> "It is thus apparent that the Isbell antenna is a combination of elements, all known in the prior art and also that these known elements were combined in the Isbell antenna in a manner dictated by a theory also known in the prior art."

The theory referred to by the Court as known was stated to be "the log-periodic method of designing frequency independent antennas" (A. 112).

If the trial court's premise concerning the elements of the Isbell antenna and the manner in which these elements were combined had been correct, we would have no quarrel with the court's determination that the result must have been obvious to one skilled in the art. The fact of the matter is, however, that there was and is no "log-periodic method of designing frequency independent antennas" but only a method of designing log-periodic structures which potentially have frequency independent properties, but which in the vast majority of cases do not. It should be noted that the "log-periodic method" (A. 94, 95, n. 3) does not itself specify which elements should be used in constructing the

log-periodic structure or give any basis whatsoever for predicting that any given element would be more likely than any other element to achieve a structure having frequency independent properties. The shape and form of the elements to be combined in a structure following the log-periodic method is limited only by the imagination of the antenna designer. The "esoteric shapes of antennas, spirals, cones, horns, ground planes" referred to by Blonder-Tongue on page 24 of its brief, are illustrative of the many elements used by skilled antenna designers in fruitless attempts to produce frequency independent antennas, all of which were log-periodic in form, and all of which failed to perform in a frequency independent manner. The prior art itself, at the time of Isbell's invention and thereafter, recognized the impossibility of predicting which of the infinite permutations of structures that could be made with all of the elements available to a designer would have frequency independent properties.

On appeal to the Court of Appeals for the Eighth Circuit, the Foundation argued that the trial court's decision was incorrect, because it was based on an improper premise, namely that the art knew how to design frequency independent log-periodic antennas. The Court of Appeals agreed with the Foundation's argument, holding (A. 94, 95):

> "On the face of the record, we must agree that this finding is erroneous. The record discloses that the log-periodic formula for antenna design was a recognized theory within the calling. This formula is discussed in the authoritative article by Drs. DuHamel and Ore entitled Logarithmetically Periodic Antenna Designs, published in March of 1958. However, as pointed out by plaintiff, this same article discloses:
>
> > 'Unfortunately, no theory has been established which even predicts the types of structures which will give frequency independent operation.'

> Jasik's Antenna Engineering Handbook, a recognized authority in the field, verifies on page 18:
>
> > 'It is not possible to determine *a priori* the frequency independent type of log-periodic antennas'.
>
> The record is clear that both plaintiff and defendant experts agreed with this fact."

Having thus held that there was in fact no method which could be used at the time of Isbell's invention to design a frequency independent log-periodic antenna, the Court of Appeals nevertheless held the invention to be obvious, saying (A. 98):

> "The problem here was one of trial and error with a combination of commonly used elements operating within known principles of electronics and mechanics to each achieve a desired result."

and (A. 99):

> "Here again the evidence reflects that plaintiff did nothing more than logical and mechanical experimentation within suggested principles and design from the existing art."

The court in essence held that in view of the availability of the elements of which Isbell's antenna is formed it was obvious to combine them to produce Isbell's invention, on a hit-or-miss, trial-and-error basis.

The "obvious-to-try" test which was applied in effect by the Court of Appeals in the *Winegard* case is both unrealistic and contrary to statute (35 U. S. C. 103), which provides that "Patentability shall not be negative by the manner in which the invention is made." This approach has further been criticized by the courts. As Judge Learned Hand said in *B. G. Corp.* v. *Walter Kidde & Co.*, 79 F. 2d 20, 22 (2d Cir. 1935):

> "All machines are made up of the same elements * * * But the elements are capable of an infinity of

> permutations, and the selection of that group which proves serviceable to a given need may require a high degree of originality. It is that act of selection which is the invention. . . ."

Similarly, in *Application of Tomlinson*, 363 F. 2d 928, 931 (1966), the C. C. P. A. rejected the argument that the invention involved only "routine experimentation", saying:

> "Our reply to this view is simply that it begs the question, which is obviousness under section 103 of *compositions* and *methods*, not of the direction to be taken in making *efforts* or *attempts*. Slight reflection suggests, we think, that there is usually an element of 'obviousness to try' in any research endeavor, that it is not undertaken with complete blindness but rather with some semblance of a chance of success, and that patentability determinations based on that as the test would not only be contrary to statute but result in a marked deterioration of the entire patent system as an incentive to invest in those efforts and attempts which go by the name of 'research'." (Emphasis in original.)

The decision of the Court of Appeals for the Eighth Circuit effectively denies the patentability of all combinations of known elements, since a desired result can readily be imagined without any knowledge of how to achieve the result and since a trial-and-error procedure can always be employed using the known elements. The court's rationale could just as readily be applied to deny patentability of a novel chemical compound having the unpredictable property of curing cancer or of growing hair on bald heads, on the ground that since the chemical elements are known, the result can be achieved in an obvious way merely by trial-and-error experimentation with all possible combinations of these chemical elements.

As another example of the obviously improper result which the rationale of the Court of Appeals for the Eighth

Circuit would reach, consider the difficulty which is still encountered today, in spite of our technological progress, in separating the segments of a grapefruit from the skin and membranes. Even the tedious use of a knife to cut out individual segments rarely produces satisfactory separation, while the use of a spoon causes the juice to spatter about in a very disconcerting way. Imagine that an astute inventor solved this homely but real problem by subjecting the grapefruit to the action of ultrasonic sound energy which ruptured the bonds between the grapefruit segments and the membranes but did not fluidize the contents, thereby permitting each segment to be separated cleanly and easily. Such a solution to the problem would nevertheless be considered obvious by the Court of Appeals for the Eighth Circuit, on the ground that both grapefruit and ultrasonic sound are known and that such treatment could have been made by trial and error "within known principles".

As Cyril A. Soans points out in his recent book, *Return to Robinson (1890)*, Whitehall Co., Northbrook, Ill. (1970), page 51:

> "Dr. Anthony *Deller*, formerly chief patent counsel for International Nickel Co. and the author of both editions of *Deller's* edition of Walker, says in the *Canadian Pat. Inst. Bulletin*, Series 7, Vol. 15, December 1965, Page 27, that every day 'more and more capital is required' to commercialize inventions, and on Page 29 quotes Elihu Thompson as saying,
>
> > 'Publish an invention freely and it will almost surely die from lack of interest, . . . Patent it, and if valuable, it will be taken up and developed into a business.' "

If the "obvious-to-try" criterion is accepted as the proper standard of obviousness, the result would be the marked deterioration or indeed the destruction of our entire patent system, as the C. C. P. A. noted in the Tomlinson case

quoted above. If the mere fact that known elements are intentionally combined renders a combination unpatentable even though the result is unpredictable and the combination is made without a reasonable prospect for success, then no discoveries will be patentable. Since the method of arriving at an invention is of no importance (under 35 U. S. C. 103), even accidental discoveries of the greatest merit would be considered obvious. Charles Goodyear's discovery of vulcanization of rubber, for example, would have been considered obvious under the standard applied by the Court of Appeals for the Eighth Circuit, since both sulfur and rubber were known, as was the application of heat. Surely the proper standard of obviousness is not as broad as that envisioned by the Eighth Circuit Court of Appeals.

QUESTION 4.

(re Fraud, Unfair Competition and Antitrust.)

In support of its position that the Isbell patent should be held unenforceable, Blonder-Tongue has accused the Foundation and its licensee JFD of several illegal activities, including fraud on the Patent Office, tie-in-sales, patent mismarking, improper news releases and false advertising, all of which were considered and properly rejected by both courts below. Of the accusations made by Blonder-Tongue only two, the prosecution of the Mayes et al. patent and the issuing of news releases concerning the litigation involving the patents in suit, relate to acts which were carried out by the Foundation. Both of these accusations have been considered above in this brief (pp. 37-42).

With respect to the charges directed primarily against JFD, the courts below found none of them to be supported by the evidence (A. 86, 69). Regardless, however, of whether this Court agrees with the courts below on all aspects of

Blonder-Tongue's charges, there is absolutely no evidence tying in the Foundation with any of the activities of which JFD is accused and therefore no basis for ascribing to the Foundation any liability therefor which might render the Isbell patent unenforceable.

QUESTION 5.

Blonder-Tongue complains that the trial court failed to follow the procedure set out by this Court in *Graham* v. *John Deere Co.*, as appropriate in treating the issue of obviousness. It is not clear whether this Court intended its described procedure as a mandatory part of a trial court's opinion rather than only a description of the type of inquiry which the trial court should carry out in arriving at its conclusion.

It is apparent that in discussing the validity of the Isbell and Mayes et al. patents, the trial court did in fact follow precisely the procedure which this Court has prescribed. It is reasonable, further, to assume that the same procedure was applied with respect to the Blonder patent and that the abbreviated discussion of the court's inquiry results more from the quite obvious nature of the purported invention rather than from any slighting of its duty to analyze the prior art in the prescribed manner. The Court of Appeals for the Seventh Circuit, although indicating that its task would have been facilitated by a formal statement of the trial court's findings regarding the prior art, nevertheless found no difficulty in affirming the correctness of the lower court's decision. Except perhaps with respect to its form, the decision reached by the trial court and affirmed by the Court of Appeals is eminently correct and should be permitted to stand.

CONCLUSION.

For the reasons given above, this Court should continue to adhere to the rule it set out in *Triplett* v. *Lowell.* The advantages of this rule far outweigh any possible disadvantages, to both patentees and the public alike. If, nevertheless, the Court feels that changes should be made, such changes can be more flexibly handled by Congress.

With respect to the Isbell patent, the findings of the courts below that Isbell's invention was nonobvious over the art and therefore valid should be affirmed by this Court. None of the reasons advanced by Blonder-Tongue for finding the patent invalid or unenforceable are persuasive. All of the arguments which were made to this Court by Blonder-Tongue were also made to the courts below, which rejected them after careful consideration.

The decision of the Court of Appeals for the Seventh Circuit should be affirmed in its entirety.

Respectfully submitted,

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